Your Document Number (same as in header)

Defense Information Infrastructure (DII)

Common Operating Environment (COE)

Database Design Document (DBDD) for (name and version of software/segment)

Document Version (if applicable)

Date

Prepared for:

Defense Information Systems Agency

Prepared by:

Your Company Name
and Address

Table of Contents

<< Table of Contents will generate here >>

List of Tables

<< List will generate here >>

List of Figures

<< List will generate here >>

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Notes on Using the Template

1. Refer to Section 3.1 and 3.2 of the *DII COE Developer Documentation Requirements* for format requirements and guidelines for using the templates.

2. This template has been formatted for a small document (12 pages or less) and double-sided reproduction. Section headings are left adjusted (refer to Section 3.1.4 item 4 of the *DII COE Developer Documentation Requirements*) and are not required to begin on a new odd page.

1. Scope

1.1 Identification

This paragraph shall contain a full identification of the system and software. It must provide the identifying number(s), title(s), abbreviation(s), version number(s), the release number(s), and the associated COE version number(s), as applicable. Identification must include the operating system platform(s) to which this document applies.

1.2 Database Overview

Briefly state the general nature and purpose of the database. Except for the initial release of this document, provide a summary of enhancements or improvements associated with the database covered by this document. Provide references to any relevant documentation.

2. Referenced Documents

Provide a list of documents referenced in this document. List each document by document number, title, version/revision, and date. Identify the source for all documents not available through the Government.

3. Database Behavioral Design

Describe the database's behavioral design. That is, how it will behave from a user's point of view in meeting its requirements (ignoring internal implementation). Identify design decisions that depend upon system states or modes. If the Software Product Specification (SPS) contains this information, information may be referenced. If some or all of the design decisions are described in custom or commercial documentation, information may be referenced (by document title, number, version/revision, and date) rather than repeated. Present or reference any conventions needed to understand the design.

For example, describe:

a. design decisions regarding queries, displays, reports, messages, and how data files will appear to the user
b. database behavior in response to each input or query
c. performance characteristics
d. selected equations/algorithms/rules and handling of unallowed inputs.

4. Database Design Details

Provide the detailed design of the database in this section. The number of levels of design and the names of those levels are based on the design methodology used (such as conceptual, internal, logical, physical, etc.). Indicate any dependency on system states or modes. Include or reference any design conventions needed.

4.1 (Name of Database Design Level)

Identify the database design level and describe the data elements and data element assemblies of the database in the terminology of the selected design method. Include the following:

a. characteristics of individual data elements, such as:

    1. names/identifiers
    2. data type
    3. size and format
    4. units of measurement
    5. range of values
    6. number of significant digits and accuracy
    7. constraints and business rules
    8. sources and recipients

b. characteristics of data element assemblies (records, messages, files, arrays, displays, reports, etc.), such as:

    1. names/identifiers
    2. data elements and their structure
    3. medium and structure of data elements/assemblies on the medium
    4. characteristics of displays and other outputs
    5. relationship among assemblies
    6. constraints and business rules
    7. sources and recipients.

5. Database Software Units

(Detailed Design of Software Units Used for Database Access or Manipulation)

Describe in the following paragraphs each software unit used for database access or manipulation, including database applications, database tools, and scripts. If all or part of this information is provided elsewhere (i.e., a user manual for a commercial DBMS), information may be referenced rather than repeated. If any of the design depends upon system states or modes, indicate dependency. Reference any design information needed from prior paragraphs. Present or reference any design conventions needed to understand the design.

5.1 (Name Software Unit)

Identify and describe the software unit. Include the following, as applicable:

a. design features

b. constraints and limitations

c. programming language

d. list of procedural commands (such as, defining forms and reports, DBMS queries, input to GUI builder for automated code generation, commands to the operating system, or shell scripts) and a reference to documents that explain them

e. description of data the software receives or outputs, described separately from data local to the software, and other data elements and data assemblies, as applicable, including:

    1. identification of the interface and interfacing entity(ies)
    2. type of interface
    3. characteristics of data elements/data assemblies associated with the interfacing entity(ies)
    4. characteristics of communication methods and protocols
    5. physical characteristics of interface

f. logic to be used by the software, such as:

    1. conditions for initialization of software
    2. conditions for passing control to another software unit
    3. response and response time(s)
    4. sequence operation and sequence control
    5. exception and error handling.

6. Requirements Traceability

Provide traceability from each database or software unit to the system or software requirements it addresses. Provide traceability for each system or software requirement to the database or software unit that addresses it.

7. Notes

Provide general information to assist in the understanding of this document. May include a list of acronyms and abbreviations, and a list of terms and definitions.

A. Appendices

Appendices may be used to provide additional information published separately for convenience in document maintenance. The appendices shall be referenced in the main body of the document, where applicable.